

1. Artificial disc replacement (ADR) apparatus, comprising:
2 an endplate that articulates with a cooperating component; and
wherein the endplate, or the endplate and the cooperating component, are
4 physically configured for assembly within an intervertebral disc space.

2. The ADR apparatus of claim 1, wherein:
2 the endplate, or the endplate and the cooperating component, are composed of
dissimilar materials.

3. The ADR apparatus of claim 1, wherein:
2 the endplate is composed of Nitinol or other shape-memory material.

4. The ADR apparatus of claim 3, wherein the Nitinol or other shape-
2 memory material is used to form projections that diverge or converge after insertion in
the disc space.

5. The ADR apparatus of claim 1, wherein:
2 the endplate includes an articulating component composed of chrome cobalt or
another metal alloy.

6. The ADR apparatus of claim 1, wherein the endplate is provided as two
2 separate components that are physically configured for assembly within an intervertebral
disc space.

7. The ADR apparatus of claim 5, wherein each of the separate components
2 are press-fit into a vertebral body.

8. The ADR apparatus of claim 5, wherein the separate components are
2 connected through a snap-fit engagement.

2 9. The ADR apparatus of claim 5, wherein the separate components are
connected through a hinge.

2 10. The ADR apparatus of claim 1, wherein:
the endplate includes an articulating component that is treaded into the endplate.

2 11. The ADR apparatus of claim 1, wherein:
the endplate includes an articulating component that is press-fit into the endplate.

2 12. The ADR apparatus of claim 1, wherein:
the endplate includes an articulating component that is press-fit through a Morse-
taper type joint.

2 13. The ADR apparatus of claim 1, wherein the cooperating component is a
spacer.

2 14. The ADR apparatus of claim 13, wherein the spacer is rotated or otherwise
manipulated to achieve a vertebral distraction function.

2 15. The ADR apparatus of claim 13, wherein the spacer is contained within a
disc space using a clip or other retaining element.

2 16. The ADR apparatus of claim 13, wherein the spacer is contained within a
disc space using a clip or other retaining element.

2 17. The ADR apparatus of claim 13, wherein the spacer is contained within a
disc space using a mesh or elastic component.

18. A method of implanting an artificial disc replacement (ADR) into an
2 intervertebral disc space, comprising the steps of:
providing an endplate constructed from first and second components;
4 installing the first component into an intervertebral disc space; and
installing the second component into the disc space by attaching the second
6 component to the first component, thereby assembling the endplate *in situ*.

19. The method of claim 18, wherein the first and second components are
2 comprised of dissimilar materials.

20. The method of claim 18, further including a spacer component which is
2 also assembled *in situ*.

21. A method of implanting an artificial disc replacement (ADR) into an
2 intervertebral disc space, comprising the steps of:
providing an endplate constructed from first and second components;
4 installing the first component into an intervertebral disc space; and
installing the second component into the disc space by attaching the second
6 component to the first component, thereby assembling the endplate *in situ*.